What Is Claimed Is:

1. An interferometric measuring device for recording the shape, the roughness or the separation distance of the surface of a measuring object (8), having a modulating interferometer (2), to which is supplied short-coherent radiation by a radiation source (1), and which has a first beam splitter (2.3) for splitting the radiation supplied into a first beam component (2.1) guided via a first arm, and into a second beam component (2.1') guided via a second arm, of which the one is shifted with respect to the other, with the aid of a modulating device (2.2, 2.2') in its light phase or light frequency, and passes through a delay line (2.9'), and which are subsequently combined at an additional beam splitter (2.10) of the modulating interferometer (2), having a measuring probe (3) that is spatially separated from the modulating interferometer (2) and is coupled to it or able to be coupled to it via a light-conducting fiber set-up (6), in which the combined beam components are split in a common arm in a partially transmitting region (3.3) into a measuring beam and a reference beam, and in which the measuring beam ($r_1(t)$) reflected at the surface and the reference beam ($r_2(t)$) reflected at a reference plane are superposed, and having a receiver device (4) and an evaluating device (5) for converting the radiation supplied to it into electrical signals and for evaluating the signals on the basis of a phase difference, wherein the partially transmitting region (3.3) is formed by a slanting exit face (3.31) of a probe fiber (3.1) at an exit angle (α) with respect to the optical probe axis (3.5) and a likewise slanting entrance face (3.32) of a fiber section (3.2) following on the object side, with respect to the optical probe axis (3.5) at an entrance angle (β), a wedge-shaped gap being formed between the exit surface (3.31) and the entrance face (3.32).

2. The device as recited in Claim 1, wherein the exit face (3.31) and the entrance face (3.32) are inclined in the same direction with respect to the probe axis (3.5).

3. The device according to Claim 1 or 2, wherein the exit angle (α) and the entrance angle (β) are selected so that a Fresnel reflection is effected.

4. The device as recited in one of the preceding claims, wherein the exit angle (α) amounts to between 5^0 and 8^0, and the entrance angle (β) amounts to between α and 0^0.

5. The device as recited in one of the preceding claims, wherein the probe fiber (3.1) and the fiber section (3.2) are accommodated in a tubule-shaped accommodation (3.6; 3.6', 3.6″) axially aligned, which is surrounded by an outer tube (3.9) of measuring probe (3).

6. The device as recited in Claim 5, wherein on the end face of the accommodation(3.6; 3.6') that is distant from the measuring object (8), a positioning piece (3.7) is provided that surrounds the probe fiber (3.1) and is also accommodated concentrically to the tube (3.9), and the fiber section (3.2) is fixed in the object-side, front part of the accommodation (3.6; 3.6″) and the probe fiber (3.1) is fixed in the rear part of the accommodation (3.6; 3.6') that is distant from the object and/or in the tube (3.9).

7. The device as recited in Claim 6, wherein the front part of the accommodation (3.6″) is separated from the rear part of the accommodation (3.6') by diametrically opposite gaps (3.61, 3.62), the one gap (3.61) being limited at the rear as an elongation of the slanting exit face (3.31) of the probe fiber (3.1), and the other gap (3.62) being limited at the front in the elongation of the slanting entrance face (3.32); and the front part (3.6″) and the rear part (3.6') of the accommodation are surrounded by a common sleeve-shaped retaining ring (3.10), which is surrounded on its outside by the tube (3.9).

8. The device as recited in one of the preceding claims, wherein a front section of the fiber section (3.2) has a lesser diameter compared to its rear section.

9. The device as recited in one of the preceding claims, wherein an object-side exit face (3.4) of the fiber section (3.2) is inclined to the axis normal at an exit angle (γ) of at least 46^0.

10. The device as recited in one of the preceding claims, wherein the modulating interferometer (2) has at least partially a polarization-maintaining light-conducting structure (2.11, 2.11', 2.12, 2.12') in the form of an optical fiber conductor or an integrated optics, the light-conducting structure (2.11, 2.11', 2.12, 2.12') having at least one arm opened.